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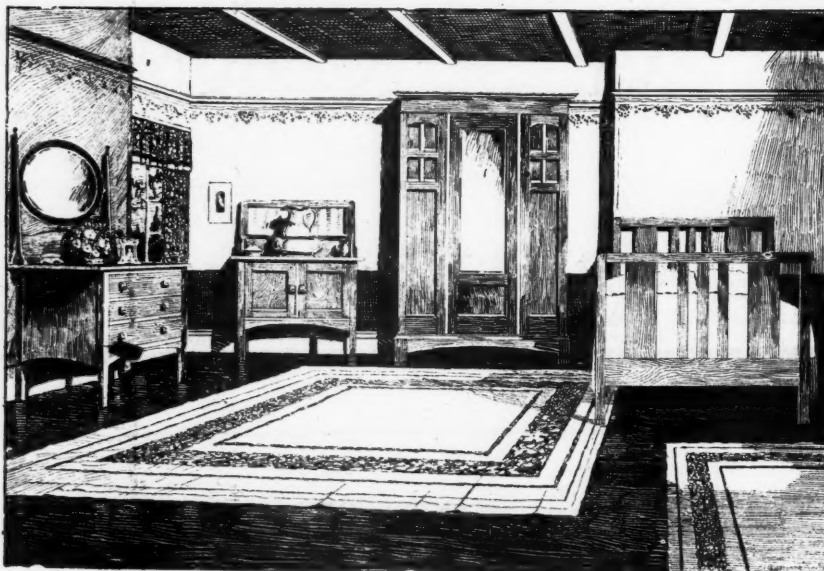
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THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. II.—6TH YEAR.

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No. 5.

THE RISK OF MALARIA IN AUSTRALIA.

By Robert Fowler, M.B., Ch.B. (Melb.),

Colonel, Acting Director Medical Services, Australian Mounted Division.

For some time past I have had in mind the advisability of communicating with you on the subject of "Malaria in Australia." The recent perusal of a similar letter by "Infected" in the *British Medical Journal* of March 22, 1919, has provoked me to draw your attention to the peculiar applicability of his letter to conditions in our own country.

I estimate that few short of 10,000 malaria infections have occurred in Australian troops in either Egypt, Syria, Salonika, Mesopotamia or New Guinea.

At all events the number of potential malaria-carriers returning to Australia will be sufficiently formidable to justify a warning to the following effect, viz.:

(a) In the near future practitioners will be called upon to treat a considerable number of malarial recurrences in men discharged from the A. I. F., many of which will be malignant, and therefore liable to be rapidly fatal.

(b) Unless prevented, there will be wide-spread infection of Australian anopheline mosquitoes with both benign and malignant parasites and a consequent increase in endemic areas.

I am unaware to what extent Australia has been subjected to modern and authoritative "mosquito reconnaissance," but I have no doubt there are still opportunities for research in order to compile a map showing all the possible endemic centres. Such would be a necessary preliminary to any anti-malaria campaign.

A great deal has been said concerning the danger of a bilharzial invasion of Australia, but the risk seems insignificant compared with what is possible in the case of malaria.

In Tasmania bilharzia is notifiable; malaria is not. In the remaining five States where malaria is notifiable, it would be well to distinguish between primary and recurrent cases.

I attach a graphic record of what the Australian Mounted Division (3rd, 4th and 5th Light Horse Brigades) incurred during our final operations in Syria. The price of victory was paid in the universal currency of the district—malaria. (The campaign of 1798 over the same area cost Napoleon practically nothing, as he operated in this region during the winter months.)

Since coming abroad I have not been sufficiently in touch with *The Medical Journal of Australia* to know if this subject has already been dealt with in your columns; none the less, reiteration will do no harm.

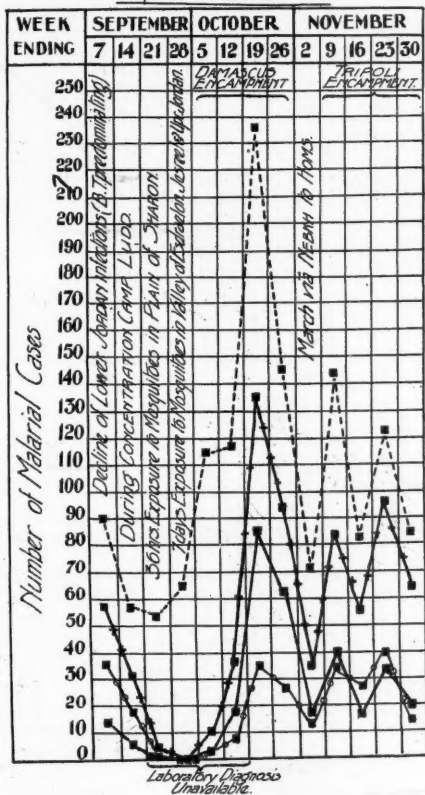
Certain it is that enthusiastic anti-malaria workers have recently returned from Egypt. I suggest that you should initiate a propaganda with contributions from Lieutenant-Colonel C. B. Blackburn, O.B.E., and Major Wilfred Evans, M.C.; the former on the clinical side, the latter on anti-mosquito measures.

No doubt the Australian Army Medical Corps in Egypt will eventually publish a malaria record, but military departments are somewhat like a traction engine—sure, perhaps, but very slow.

The need for anticipation is my only excuse for claiming your kind attention.

AUSTRALIAN MOUNTED DIVISION

Chart Showing Malarial Incidence Period Sept. 1st - Nov. 30th 18.



KEY

- Primary Benign Tertian (laboratory diagnoses only)
- Primary Malignant Tertian (laboratory diagnoses only)
- Total diagnosed Malaria (including Clinical Recurrent)
- Malaria Index

NOTE. The calculation for this index is based upon the assumption that roughly 50% of Pyrexia MTD cases were Malaria (the remainder being probable Influenza). The resultant figure added to the total diagnosed Malaria gives an index of value more particularly during periods when laboratory diagnosis was unavailable.

NOTES ON MALARIA AS SEEN IN MACEDONIA.

By Mary C. De Garis, M.D., B.S. (Melb.),
Geelong (Late Chief Medical Officer, Scottish Women's Hos-
pital, Ostrovo, Macedonia).

Malaria was almost universal in parts of Macedonia, and was very frequently of the malignant form, at least in the district where our hospital was.

It was our general experience that every newcomer, no matter how well read in medicine, needed to learn how to live in the country, and how to recognize and treat the disease and especially to realize its protean character.

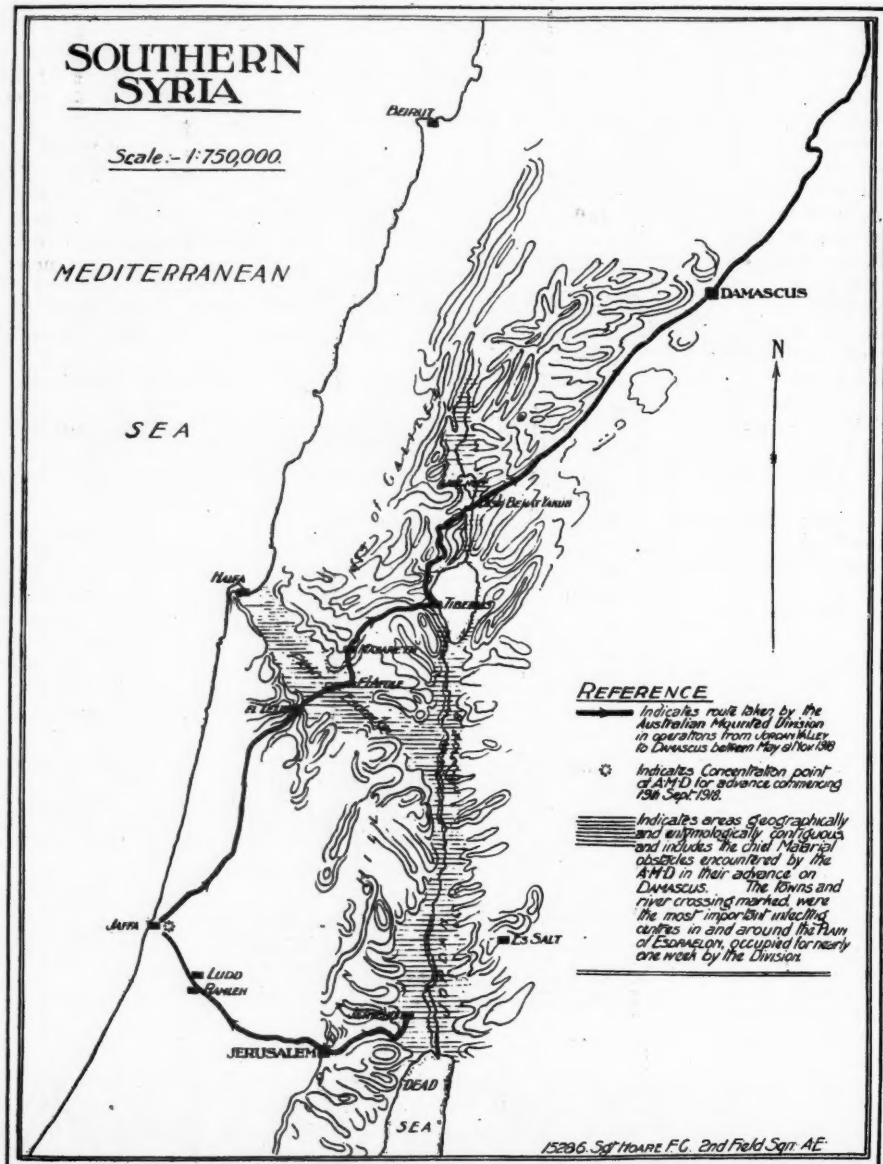
The French make a very helpful division in studying the disease, by describing a primary and a secondary form, the secondary being the recurrent type seen in malarious subjects in non-malarious climates and being also the type (conforming to the text-book description) of the disease familiar to those who have not practised in malarious countries. The primary form, on the other hand, is seen only in malarious countries and is not always recognized. Reinfection and recurrence go on hand in hand in a malarious country.

I always think of the primary attack as a febrile condition with anorexia and usually headache, aching of the limbs, loss of weight, anaemia, and with or without gastro-intestinal symptoms and a liability to other complaints, e.g., abdominal pain, especially in the splenic region, with or without a palpable spleen. Rigors were rare save in secondary attacks. It may be very mild or very grave.

As my experience increased, it became

my habit to treat every raised temperature as malaria, unless obviously due to something else.

Malaria is remarkably responsive to treatment with quinine (especially by injection), but very resistant to cure. The French thought it definitely curable if thoroughly treated during the primary disease. There were many methods of treatment and the same doctor did not always pursue the same method, as all methods failed in some cases. The majority of the methods embraced the exhibition of quinine, arsenic (e.g., as cacodylate of soda) and iron. The iron and arsenic were absolutely necessary in nearly every case, as anaemia to a greater or less degree followed or accom-



Map Illustrating Colonel Robert Fowler's Article (see page 83).

panied malaria. In our hospital the usual treatment was in all marked cases by about 12 intramuscular injections of quinine (quinine 0.4 grm., urethane 0.2 grm., in ampoule), and about 6 ampoules of cacodylate of soda, followed by about 1.2 grammes (20 grs.) of quinine daily by mouth and an iron and arsenic mixture thereafter. We never tried the big doses (2.7 grammes (45 grs.) daily) by mouth, as advised by some. We generally also gave 0.3 mils (5-minims) of adrenalin solution with the first quinine injection for the day. However, in our hospital the various doctors had their own special ways of varying the treatment. It was an absolute rule that every severe case, and especially those showing cerebral symptoms, must be treated by injection. In cerebral cases we often got excellent results unless the patients were sent in late to us. The quinine injections were given every four hours and often two ampoules at a time; rarely we injected quinine every two hours. I also gave a good deal of water (or saline solution), preferably by mouth or rectum and occasionally subcutaneously. In at least one case I am sure pituitary extract helped to save the patient, who was a member of our own staff.

Beside the cerebral symptoms, which were the most dreaded and the least frequent, there were other very interesting symptoms liable to occur. Diarrhoea and vomiting, separately or together, were quite frequent, and one might occasionally overlook the malarious origin of the symptoms, unless the spleen were so enlarged as to make it practically certain. In one patient I had great difficulty in persuading her that it was malaria and not a bilious attack which was prostrating her. She refused treatment for a week, by which time she was extremely ill. She speedily recovered after a course of injections, but showed marked anaemia and asthenia thereafter.

Irritability of temper was very frequent before, during and after an attack, so much so that it was the camp custom to say: "You must have malaria" to anyone showing temper.

Syncope was not uncommon in those who persisted in working too long before going to bed. Headaches varied from atrocious down to mild. They were sometimes absent.

The splenic pain may be absent, slight or extremely severe. The first case I saw simulated a severe pleurisy. It occurred where spleens were impalpable as well as in moderately large and huge spleens. It was generally accompanied by tenderness.

Herpes was a great help to diagnosis, as it was so very common. It was generally about the mouth, sometimes on the nose, cheeks and eyelids. I have seen the whole face a mass of herpes in a male patient. I saw herpes of the cornea twice. In the first case it affected one of our orderlies, with a widespread herpes about the mouth, nose, cheeks and eyelids. She suffered terrible pain, requiring morphine internally and cocaine (in castor oil) locally, but the eye made an almost perfect recovery. The second case was in a Serb soldier, whose eye had been neglected, and it appeared as if his cornea would remain permanently leucomatous. He also had iritis at the time I saw him (late in the disease). The enlargement and frequent tenderness over the spleen were of great

help in diagnosis. The spleen was generally palpable; in a few it was enormous; it was sometimes soft and sometimes very hard.

A severe malaria may easily be mistaken for typhoid fever. The aspect of the patient is very similar. I made this error in one case, not making the correct diagnosis for 24 to 36 hours after admission. This is a bad mistake, as quinine should be pushed as early as possible in these toxæmic cases. Luckily my patient recovered, but after a long illness.

We had several patients who had malaria and paratyphoid fever concurrently. These diagnoses were not made by us except under long observation. Any sustained fever was treated with quinine to be on the safe side, though the drug was not pushed unless a probable diagnosis had been made. Our two patients recovered.

"Sandfly fever" was a favourite diagnosis with some for febrile attacks. The only times I ever made this diagnosis (early in my stay in Macedonia) the patients steadily got worse until treated with quinine, so that I came to consider this a most unreliable and unjustifiable diagnosis, at least in our district.

In the winter our patients with recurrent malaria showed a great tendency to bronchitis, but I saw only four or five with pneumonia complicating malaria. The pneumonia started without preliminary bronchitis; all the patients were alarmingly ill, though all recovered after prolonged fever and tedious convalescence.

The abdominal pain occasionally led to a diagnosis of appendicitis. One of my patients was sent in for an operation for appendicitis. I hesitated to operate, being uncertain of the diagnosis, but the day after admission he seemed so much worse that I explored his abdomen and removed his appendix. His appendix was practically healthy, but it contained a grape-seed at its tip. The patient remained ill after the operation, but after a few days of quinine, made a good recovery. In thinking this case over, I should place it as a malaria with appendicular colic. A few days later I saw another case of malaria with mild appendical symptoms, but trusted to quinine, which speedily removed the symptoms.

The cause of the cerebral symptoms was not always easy to diagnose. In one case I mistakenly attributed the symptoms to cerebral abscess from ear disease; in another I could not tell, at the bedside, whether the coma was due to a stroke in a malarious subject (as suggested by the history), or whether it was the ordinary cerebral malaria.

The French laid great stress on the frequency with which malaria affects the suprarenal glands, and gave adrenalin freely to weak and asthenic patients. I was never able to make a definite diagnosis of suprarenal disease.

Recurrence of malaria is of immense importance medically and surgically. Any severe illness, operation or intense emotion (grief, anger), and undue strain or fatigue seems to induce a recurrence in many persons. It is wise to give quinine as a preventive (one, two or three doses) in any one known or surmised to have had malaria previously, before doing any operation or in any severe illness. We operated on many persons with hernia at our hospital, and

in the earlier cases the radical cure was so often followed by illness as to make us question the wisdom of doing these operations. However, by giving quinine by mouth for several days prior to operation or one injection on the table, this illness was practically abolished. One patient with gangrenous appendicitis died from coma, though her abdominal condition was progressing famously. This operation was done without a preventive dose, and before its necessity was realized; in fact, it was one of the instructive cases from which was learnt the importance of preventive treatment of a possible malarious complication in a person apparently free from malaria, though with a history of a previous attack.

Some patients seemed not to have frank attacks of malaria, but to become progressively anæmic, wasted, sallow and tired. A change to England improved some wonderfully; in others it induced frank attacks.

The prophylaxis of the disease was difficult. Marshes and the anopheline mosquito prevail in Macedonia; our hospital was beside a marsh. However, I never met anybody who did not think her hospital had the most malarious site in Macedonia. The best prophylaxis was the prevention of being bitten by the employment of mosquito nets, gaiters from sundown, veils and gloves for night sisters, etc.. Drainage of one's own camp and immediate surroundings was important. But nothing short of a big commission could deal efficiently with the problem of the Macedonian marshes. The use of quinine daily or twice a week, etc., as a preventive did not appeal to me, and most English people abandoned it, though the French strongly advocated it. I thought those who had taken preventive quinine for a long time, seemed less responsive to treatment during their illness and more liable to chronicity. Those of us who frankly abhorred quinine, did not suffer more frequently than those who took it. I, myself, went 8 months between my first and second attacks, not having taken any quinine after the 12 injections for the first attack. During my second summer in Macedonia, when we paid much stricter attention to the prevention of biting, and much less to the prevention by quinine (the taking of quinine was made optional instead of compulsory), the incidence of the disease was notably lowered, and the severer cases occurred also much later in the summer (in September instead of in July). In the first summer we had as many as 20% of the unit down at the one time. Some units are said to have had 30% ill at once, and I even heard of 40%. Certainly, hardly anyone who spent two summers in Macedonia, and perhaps even one, could escape infection.

A most important point was the immediate treatment of the earliest symptoms. Any of the members of my unit was allowed and encouraged to have three injections of quinine in 24 hours, by applying to the sick-tent sister for them. Anyone requiring more than three injections had to "report sick." This method was introduced as the girls were most reluctant to "report sick," and would consequently wait too long before getting adequate treatment. This method worked well, notably reducing the inmates of the sick-tent. Work and quinine agreed better in incipient cases than rest without quinine. Anyone noticeably ill was always sent to bed if she inadvertently came in Matron's or my way.

The important thing for Australians to remember is that in anyone who has lived in a malarious district, the disease may be latent, ready to awaken at the shock of any severe illness, operation or mental or physical strain. In the event of illness or operation one or two preventive doses of quinine at the outset will probably prevent the development of the disease. I have never seen this treatment do any harm.

Intramuscular injections require strict asepsis, a good needle and a well-chosen site. I preferred a hypodermic needle rather over 2.5 cm. long and my favourite site was on the outer side of the thigh, above the trochanter and below the iliac crest. In this position any lumpiness or tenderness (which was very frequent) did not interfere with comfort in lying and there seemed much less chance of affecting a nerve branch. Exercise, *e.g.*, walking, improved the local condition.

When long, big needles were used, there were several complaints of localized anæsthesias and numbness. I also thought there was more tendency to a deep quinine sore with very long needles. The very short needle led sometimes to a superficial sore. The two kinds of sores liable to occur are a superficial circular sore at the site of injection, looking rather like a dry necrosis of the skin and being very slow to heal and a deep-seated sore, containing a thin, fatty fluid, discharging freely through a narrow sinus opening on the skin surface. The discharge is very abundant. This sore, however, usually healed quicker than where the skin had necrosed. In one patient, admitted from outside, there was an extensive swelling of the buttock, due to the infection of such a deep sinus.

The occurrence of sores seemed to me to be due to some defect of technique or choice of site (*e.g.*, I saw one or two near the sacrum). In some instances one attributed the occurrence of the sores to a peculiarity of the patient.

We never had any blackwater cases at our hospital, though another hospital in the neighbourhood receiving its patients from another section of the front, had many cases.

INCIDENCE OF MALARIA AMONGST TROOPS ON A TRANSPORT TO AUSTRALIA FROM EGYPT AND PALESTINE.

By Walter Summons, M.D., D.P.H. (Melb.),
Colonel, Australian Army Medical Corps.

The experience on the voyage will exemplify what is likely to occur in Australia amongst the troops repatriated from Palestine. As these troops will be distributed all over the Commonwealth, it seems advisable to place on record the following for the information to practitioners who have not seen the cases overseas. A malarial infection in the acute stage will simulate a number of diseases; in the subacute and chronic stages a recurrence resembles other acute illnesses and the cachexia must be distinguished from other debilitating conditions associated with anæmia, wasting and asthenia.

On the transport there were 716 soldiers. Of these 297 were being repatriated as invalids and the remainder as fit men. The reason for invaliding 131 of the invalids was malaria or its sequelæ. In addition,

however, a percentage of all the other troops had had malaria and were consequently liable to have recurrences. The infection in the majority of cases had occurred in Palestine. The 131 malarial patients mentioned above were carefully examined early during the voyage and 80 were placed under quinine treatment by Major R. G. Woods. These were regarded as out-patients of the hospital. Many of them were treated by oral administration, but those with palpable spleens and a marked grade of anaemia were treated first of all by intramuscular injections of quinine, followed later by oral administration. Amongst those treated orally, five were subsequently admitted to the hospital with an acute recurrence, demonstrating clearly that quinine given orally is not sufficient to inhibit the cycle of the plasmodium which has already gained access to the body. The experience of the war has shown again and again that the prophylactic oral administration of quinine is futile to prevent a malarial infection occurring.

The soldiers who suffered an acute recurrence on admission to hospital had a blood smear taken before quinine treatment was begun. The blood smears so taken gave the following figures:—

Benign tertian parasites found in	28
Malignant sub-tertian parasites found in	2
Benign tertian and malignant tertian parasites found in	1
Smears (negative)	17
Total	48

Those cases in which no parasites were found, were definitely clinical malarial recurrences. It is noticed that benign tertian parasites predominated in the recurrences. As a comparison Major F. W. Ferguson, A.A.M.C., supplied the following results obtained in primary cases investigated at the Anzac Field Laboratory.

In all 12,585 slides were examined and of these 30% were found to contain parasites. Cases of double infection were regarded as two infections.

Total Positive	3,788
Malignant sub-tertian parasites found in	2,547
Benign tertian parasites found in	1,225
Quartan parasites found in	16

It will thus be seen that the benign tertian infection is more likely to produce recurrences, though the malignant tertian infection was more common and also more virulent at the time of infection.

The symptoms in the majority of the recurrences were the typical rigor and rise of temperature. A history of a previous attack was usually elicited. These cases were readily diagnosed. But a number of cases are not true to type. On the voyage there was at the same time an epidemic of influenza and in a number of cases the diagnosis was only made on the blood examination or by the progress of the case. In all cases of fever associated with persistent vomiting, diarrhoea, moist sounds in the lungs, persistent headache and malaise in men returned from Palestine, malaria must be excluded. Usually enlargement or otherwise of the spleen will clinch the diagnosis, but not infrequently the splenic enlargement is difficult to

detect. Examination of a blood smear taken during the febrile disturbance or shortly afterwards and before any quinine has been administered, should be made. The smear can readily be stained by Giemsa's or Leishman's stains, but a careful examination of the smear must be made before a negative finding should be accepted. Apart from the finding of the parasite, malaria should be suspected if the red cells are swollen or fragmented. Excess of large mononuclear leucocytes is also an indication, but on active service the count of large mononuclear cells has been high in a number of diseases.

Treatment by quinine unless recent, does not interfere with the presence of the parasite in the blood during an acute attack.

Some of the cases positively diagnosed by the smear were in patients who had had clinical attacks previously, but the parasite had not been found during former examinations. These patients in whom the condition was pathologically diagnosed for the first time, had considered that they had escaped infection altogether.

Though all patients with malarial infection are liable to recurrences, there may be long intervals between the rigors and febrile reactions. An afebrile rigor is not an unknown occurrence. This is apart from any change of temperature which is likely to cause shivering feelings in anemic, debilitated men. The patient may not report "sick" on these occasions, as they may regard the symptoms as mild attacks which will pass. They are, however, indications of a still existing infection. Other evidence of the presence of active parasites is a continued destruction of red blood corpuscles, resulting in anaemia, asthenia, wasting and debility suggestive of a tuberculous infection. In these cases it is unlikely that the parasite will be demonstrated in the blood film, because of the paucity of the number present. Careful examination will reveal a splenic enlargement. Puncture of the spleen, were it a permissible means of diagnosis, would give a smear in which doubtless numerous parasites could be demonstrated.

These chronic cases will also be characterized by irregular attacks of fever without a rigor. The fever may not remit, but be continued and, if the case is associated with headache, a diagnosis of enteric fever is likely to be made. The diarrhoea of the late cases is not blood-stained as in the primary attack, where dysentery may be the clinical diagnosis.

In the treatment of the acute recurrence, there is only one satisfactory method of administration of quinine. That is by intra-muscular injection. Ten to fifteen cubic centimetres of a solution of quinine bi-hydrochloride of the strength of 0.06 gram. to one cubic centimetre injected into the upper and outer quadrant of the buttock once a day for three or four days will rapidly bring the infection under control. Then the quinine should be continued for two or three weeks in doses of one gramme twice or thrice daily, according to tolerance and then for the next two months four grammes weekly. If tinnitus, vomiting or headaches result, a remission of the treatment altogether for a few days is advisable. When a recurrence has taken place, treatment should be started *ab initio*. If a case is of more than ordinary severity

and presents symptoms of coma, hæmaturia or great severity of ordinary symptoms, a dose up to 12 grammes should be injected at once. There seems to be no objection to giving the injection at the height of an attack and patients with experience of previous attacks will volunteer the information that the quinine injection cleared the malaise and aching more rapidly. Of the use of antimony tartrate I have had no experience.

With the intramuscular injection, the results are so satisfactory that one could hardly desire a better method of treatment. The effects are much more rapid and lasting than the results from oral administration. Care in selection of the site of injection, asepsis, slow injection through a fine needle, will obviate all the discomforts of the injection and necrosis of muscle will be a rare occurrence indeed. Quinine bi-hydrochloride is readily soluble, but should not be used in greater strength than 0.06 grm. to 1 c.cm. of normal saline solution. It may be purchased in ampoules of greater strength solution, but should be diluted with normal saline solution prior to use.

There is no need to confine a man to bed after an injection, but for his personal comfort he should be advised to avoid pressure on the area and also to rest for the 24 hours following the injection.

In addition to the quinine treatment, to get rid of the invasion of the parasite it will be necessary to build up the general strength, and especially to assist in the reforming of the red blood cells by the giving of iron and arsenic and other tonic forms of treatment. Avoidance of chills should be impressed on the patient, for a man debilitated with malaria is much more liable to contract pneumonia and die of it than a man with a healthy and ample blood supply. The prognosis of any intercurrent illness is worse in a malarial subject.

It must never be lost sight of that every man of the Australian Imperial Force from the Palestine theatre of war has been exposed to malarial infection. Malaria simulates many diseases and in all cases of illness, even apparently not of obscure origin amongst the returned Palestine troops, malaria must be proved not to be present. The two outstanding means are examination of the spleen for enlargement and of the blood smears for the presence of parasites. If this be done as a routine, some surprising diagnoses will be arrived at and a rapid amelioration of symptoms brought about by the intramuscular injection of quinine that otherwise would have resisted the usual symptomatic treatment.

The treatment given in Palestine and at the No. 14 Australian General Hospital has been standardized, so that the full course can be followed through. With the rapid change of patients from unit dressing station to field ambulance, clearing station and base hospital, it is known by all in medical charge what treatment the man has previously had. This same movement of patients is likely to apply in Australia; soldiers will move about and come under the care of various medical officers. If a uniform mode of treatment were adopted, the treatment received by the soldier would be most satisfactory and the results accordingly good.

Reports of Cases.

REMARKS ON FRACTURE OF THE MANDIBLE IN THE VICINITY OF THE ANGLE.

By R. V. Hennessy, M.B., B.S., D.D.Sc. (Melb.), L.D.S. (Vic.),
Resident Medical Officer, St. Vincent's Hospital, Melbourne.

The following are notes of a case of peculiar double fracture of the mandible.

M.G., female, *æt.* 23, was first seen by me in the Casualty Department in the early hours of the morning of February 25, 1919. She complained that she had been struck violent blows on the lower jaw some hours before while under the influence of alcohol. Examination revealed an obvious fracture of the angle of the mandible on the right side. I was unable to come to a conclusion as to the condition of the bone at the left angle. Reduction of the fracture (which was compounded into the mouth) was effected under somniform anæsthesia and a firm four-tailed bandage was applied.

The hygiene of the mouth was energetically attended to until the skiagrams were available some three days later. The interesting conditions shown in the skiagrams I. and II. were then revealed.

It will be observed that there is a fracture at the angle of the bone on either side. Moreover, on each side there is an unerupted third molar tooth which, on the left side at least, is definitely impacted. This tooth lying at right angles to and across the line of fracture acted as a splint and by preventing any mobility of the fragments, obscured the diagnosis.

It was decided that the best way to treat this fracture would be to immobilize the temporo-mandibular articulations by wiring the teeth of the island fragment of the mandible to those of the maxilla in correct dental occlusion. This method of treatment was first advocated, as far as I am aware, by Gilmer, of New York, some years ago. Angle's heaviest gauge orthodontic wires were used. One wire was passed around one of the bicusps and the canine tooth in both jaws on either side, eight teeth in all being used. The tails of the wires were left long and were intertwisted with those of the corresponding teeth of the opposite jaw, thus effecting a permanent fixation of the lower teeth to the upper. The anchorage thus obtained was not sufficiently strong to withstand the strain for longer than one week. Altogether until they were finally removed, the wires were renewed three times. This covered a period of about three weeks. By this time the union had become sufficiently strong to give rigidity to the jaw for movement and mastication. For the first 24 hours after removal of the wires there was a certain amount of stiffness and soreness of the joint, but it rapidly disappeared and was of no consequence.

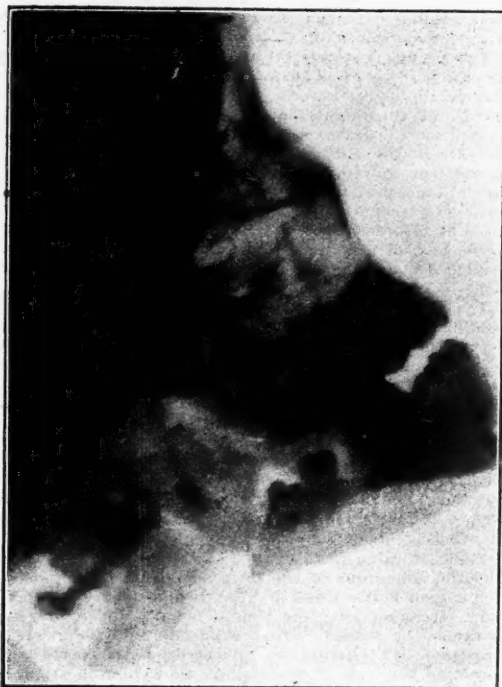
During the next couple of weeks for some reason unknown to me the bite (originally an edge to edge one) began to move forward very slightly. Perhaps the period of immobility was too short for a double fracture. The patient was directed to use the muscles vigorously and the use of chewing gum was recommended, but the *status quo* was never quite regained.

When the patient was last seen on May 26, 1919, there was a firm union on both sides and no callus was perceptible to the examining finger. The facial symmetry was undisturbed. The bite was not exactly the same as before the fracture; there was a very slight inferior protrusion. Nevertheless the patient was able to masticate with ease and the new bite caused little or no inconvenience. The skiagrams III. and IV. show the conditions which obtained upon that date.

Comments.

Although I believe that I have seen more than my share of mandibular fractures at the angle, I have only been responsible for the treatment of three other cases. The first of these was complicated by a fracture in the canine region as well. The angle fracture mended almost spontaneously without other treatment than a four-tail bandage.

The second case repaired quite well, notwithstanding a small abscess which formed six weeks after the date of the fracture and which was opened surgically on the face. When seen fourteen months later the man had practically a normal dental occlusion, firm union and an insignificant surgical scar. He complained of anæsthesia in the area of sensory



I.
Skiagram of Right Side, taken on February 25, 1919.



II.
Skiagram of Left Side, taken on February 25, 1919.



III.
Skiagram of Right Side, taken on May 23, 1919.



IV.
Skiagram of Left Side, taken on May 23, 1919.

supply of the inferior dental nerve. This case was treated with a four-tail bandage and manipulation.

The third case convinced me that this method of treatment was too full of risks and wholly inadequate for routine purposes. This case was a hopeless failure, although managed along the same lines. Union was obtained only after sinuses in the face were established and sequestra were separating. The bite was serious deranged, but fortunately there were very few sound teeth in the whole mouth.

Observation of my own and other cases forces me to believe that the greatest difficulty is to combat sepsis successfully. In the case of mine where it proved so marked a feature, the patient was an inexorable alcoholic who wholly neglected his oral toilet and could not be persuaded to take an interest in his case. His mouth was in a very septic condition at the date of the fracture. I feel certain that with an intelligent and enthusiastic patient sepsis can be controlled.

The next great difficulty is to prevent any interference with the patient's dental occlusion or, what amounts to the same thing, to obtain and maintain perfect reduction of the fracture. In many cases the dental bite is so badly interfered with that the jaws cannot be satisfactorily brought together after the fracture has repaired. Teeth have to be extracted and in the worst cases a bite is obtained, even after the sacrifice of many teeth, which is of little use for mastication.

The difficulty of getting a suitable splint can be appreciated when it is remembered that there is no tooth posterior to the line of the fracture. The fracture is not high enough in the ramus for the balance of the muscular mass on either side to be even and prevent separation of fragments. My experience of external splints is that they are to be avoided at all costs. They never control the fragments and they always cause deformity. The only feasible method of obtaining and retaining reduction is to immobilize the joints. The four-tailed bandage is not sufficiently satisfactory to be recommended. I would venture to submit that if the conditions are favourable, Gilmer's method is eminently efficacious and very simple. The conditions necessary are a sufficient number of reasonably clean teeth and a fairly definite dental bite. The operation of wiring the teeth is not difficult but tedious. Iron, brass or Angle's orthodontic wire may be used. The wires are passed around each tooth separately from the lingual aspect and through the inter-proximal spaces. The first two twists of the wire are the most important. They should be the ones which make the wire grasp the tooth firmly. The tails of the wires, which are left fairly long, of the opposing teeth are then intertwisted in the buccal sulcus in such a way as to give the maximum strength.

The feeding of a patient with closed jaws is very simple. My patient started with a "goose neck" cup, but was able to dispense with it in a very few days. Very soon she was able to eat semi-solid food. Blair gives an elaborate dietary chart in his book. The patients do not apparently find the occlusion irksome nor embarrassing. My patient attended convivial gatherings where swallowing was more important than mastication on at least two occasions apparently with some success.

The oral hygiene is easy to maintain and a tooth brush with peroxide is used vigorously and frequently. A spray is useful during the early stages. The risks of sepsis intervening after the first week can be disregarded.

Reviews.

THE PSYCHO-NEUROSES OF WAR.

"*Traitement des Psycho-Névroses de Guerre*" forms one of the *Collection Horizon* published by Masson et Cie, of Paris, and is written by three French neurologists (Roussy, Boisseau and d'Elsnitz) maturely experienced in the observation and treatment of the psycho-neuroses resulting from active war service.¹ And although many publications on this subject in our own language and by variously-qualified writers have come to us, the present work is acceptable because not only does it bear the hall mark of the French school of

neurology and therefore commands respectful reading, but it is profitable for us to compare notes with men imbued with the doctrines of Charcot regarding hysteria.

The prelude consists of a clinical review of the manifold morbid states. It is pointed out that the psycho-neuroses include, in addition to manifestations of hysteria, neurasthenic, psychasthenic, emotional and even confusional and melancholic disorders; in the category come psycho-motor troubles of the nature of hemiplegia, contractures, tics and choreiform movements; sensory disorders of general and special kind, pseudo-neuritis, mutism and deafness; sphincter weakness, incontinence of urine and emotional diarrhoea; visceral disorder, such as anorexia and tachypnoea, and a whole host of functional disabilities. All of these are briefly described and many are illustrated by excellent photographs, some in cinematographic series.

The chapter on the genesis of these disorders is pleasant reading and abundantly shows that the symptoms in almost every case are traceable to suggestion and ought, therefore, to be dismissible by counter-suggestion; but while it would be obviously important to recognize the psychic element in the very beginning and so check the growth and establishment of the ultimate morbid state, such a preventive measure seems incapable of realization. It means time-absorbing examination and correct diagnosis in field ambulances and clearing stations during the crash of battle, which is impossible. Similarly it is impractical to suggest that medical officers in all stations and in all specialities should co-operate in bringing about salubrity of mental attitude.

Much of value will be found in the discourse on treatment and the soundness of the lines advocated cannot be denied. Hypnotism is discarded because "while it may bring a rapid cure, it cannot alter the mental terrain, and it may tend to increase the already great suggestibility." Persuasion, as practised by Dejerine, is embraced as the perfect means. Examine the patient thoroughly, show him the true nature of his malady and prove to him that he has no organic lesion but simply an erroneous conviction. Prepare for treatment in a favourable environment and in an atmosphere of cure; this is regarded as of capital importance; it implies segregation in a neurological department and exposes the futility of attempting to treat such patients in a general hospital. Make use of isolation in refractory cases. Choose the right time for attack and strike vigorously and with forces fresh. To illustrate the method several cases are reported in detail and are most instructive. They show that each case has its special attributes and that the lines of attack may vary infinitely.

There is a long chapter on pathogenesis, in which the reflex, dynamogenic and dyskinetic theories are discussed. This matter is entirely of academic interest.

PNEUMONIC INFLUENZA.

In the *New South Wales Government Gazette* of July 21, 22 and 23, 1919, no less than eight proclamations dealing with the influenza epidemic, are published. The restrictions which have previously been imposed on persons within infected areas, are prescribed for the districts of the town of Canbelego and of the Shire of Coolah. Previously issued proclamations imposing restrictions on persons within the municipal areas of Tamworth, Bega and Nyngan and within the Bogan Shire, within the municipal areas of Tumut and Wyalong and within the town of West Wyalong, are cancelled.

It is officially recorded in the *New South Wales Government Gazette*, No. 179, of July 21, 1919, that the Honourable John Daniel Fitzgerald, M.L.C., Vice-President of the Executive Council, has resigned his office as Minister for Public Health and that the Honourable David Storey, M.L.A., has been appointed Minister for Public Health.

We learn that Lieutenant-General Sir David Henderson, K.C.B., D.S.O., formerly Director-General of Military Aeronautics, has been appointed Director-General of the League of Red Cross Societies. This League was established at a Conference of the Red Cross Societies, which was held in Paris during the month of May.

¹ *Traitement des Psychonévroses de Guerre*, par G. Roussy, J. Boisseau et M. d'Elsnitz; 1918. Paris: Masson et Cie; Crown 8vo., pp. 191, 12 plates and 15 figures. Price, 4 francs.

The Medical Journal of Australia.

SATURDAY, AUGUST 2, 1919.

The Malaria Problem.

In the present issue we publish three articles on the significance of malaria among Australian soldiers in the East. Colonel Robert Fowler invites others who have had experience of this disease among our troops abroad, to contribute to the discussion. The facts set out in these articles need no emphasis. Nor is it necessary to reiterate the warning that every soldier returning from Palestine represents a potential danger to the rest of the Australian community, unless steps are taken to control his infection. Unfortunately Australia is not innocent of malaria at the present time. During the year 1918 41 persons died of malaria and an unknown number died of other illnesses influenced by a pre-existing malarial infection. Only 67 infections were reported, but it is evident that very many medical practitioners do not regard the duty of notifying infective diseases seriously. If the knowledge derived from the notification of infective diseases were put to proper use in all the States, this remissness on the part of practitioners would be unpardonable. Under the circumstances obtaining in some States where the health authority requires a volume of information in addition to the main fact of the existence of the infection, the failure is pardonable. We may call the attention of medical practitioners to the fact that a doctor was fined the sum of £50 at Newcastle-on-Tyne during the month of May for having failed to report a case of *ophthalmia neonatorum*. When preventive medicine is practised seriously in the Commonwealth, it may become necessary to impose a few exemplary fines for similar breaches of the provisions of the health acts.

The amount of malaria present in Australia at the present moment is unknown. Attempts have been made to ascertain the distribution of anopheline mosquitoes presumably capable of carrying the plasmodium. These mosquito surveys have yielded im-

portant information, but they are insufficient for two reasons for the practical purpose with which we are concerned. In the first place, while malaria is endemic in tropical Australia and to a slight extent in some of the sub-tropical regions, it has not yet been demonstrated which mosquito acts as the vector of the infection. In the second place, with the extension of irrigation, the habitat of anopheline and other mosquitoes will certainly undergo a simultaneous increase. The experience made in California during the past three or four years illustrates this point. With the opening up of fresh irrigation areas, anopheline mosquitoes appeared in districts previously free from these pests. It may therefore be assumed that the problem of the prophylaxis of malaria in Australia should attract the attention of hygienists at once. It is an expensive matter to eradicate malaria once it has gained a firm foothold in any large area. The destruction of pools and other breeding places of mosquitoes costs money, but malaria in a population costs much more. The expenditure entailed by endemic malaria represents a sheer loss. Much money has to be spent on quinine; medical attendance, nursing, the maintenance of the infected in hospitals and extra comforts for the patient translated into pounds, shillings and pence constitute a formidable sum. The loss of earning power means a dead loss of money to the community. Added to this the extra money spent on pensions and the cost of the death of the bread winner bring the total amount to a very high figure. It has been estimated that the cost of malaria in California in the year 1918 amounted to about £2 per person. At present the amount of malaria in Australia has not assumed a proportion that need trouble the Federal or State Treasurers. But is it economically sound to trust to chance? At any moment we may experience a sudden and alarming spread of the infection. The infected men are returning in considerable numbers. We must assume that mosquitoes capable of carrying the plasmodium, exist in many parts of Australia. In the more densely populated districts the essential conditions for the propagation of mosquitoes can be found. An energetic campaign should therefore be instituted without delay, north, south, east and west, both in the interest of humanity and also to protect the pockets of the already overburdened tax-payer.

THE SYSTEMATIC LECTURE.

Instruction can be carried out by means of stereo-type text-book lessons delivered to classes, by lessons adapted to the individual mental attitude of the individual student or by the process of trial and failure. In the education of medical students, the methods in vogue have been largely mass methods, stereotyped in certain medical schools. The student is required to listen to a given number of lectures on set subjects, while practical demonstrations and class work are so arranged that the most intelligent and the dullest members of the class can acquire a minimum amount of knowledge standardized by the examiners for the purpose of the forthcoming examination. The lecturer and the demonstrator fashion their teaching on the published views of the authors of certain text-books. At times these text-books are rapidly passing out of date. The student is supposed to read his books and to learn his lessons by rote rather than by the exercise of understanding and thought. In the later part of the medical course the student is given the opportunity of listening to so-called clinical lectures or bed-side discourses, in which the teacher draws on his own stock of knowledge and acuity in interpreting the signs of disease. A comparison between the value of the clinical lecture and the value of the systematic lecture is made involuntarily by every keen student. He experiences something tangible during the former. He is able to ascertain in a practical manner how the information contained in books can be applied in a specific case of disease and he learns to perform a task that will become his daily duty in his later life. Much, no doubt, will depend on the skill and ingenuity as a teacher of the lecturer. Much, also, will depend on the size of the class, for a physician or surgeon talking to a half a dozen students will be in a position to explain to a particular student points that require minuter elucidation, while with a large class this individual attention becomes impossible. The systematic lecture is not always dull. It may be instructive and stimulating, if the lecturer speaks out of a store of vast experience and varies his story in accordance with the results of his own observations and researches. But in the majority of cases the lectures that are delivered to students, are repeated almost word for word session after session. It then

becomes practically impossible for the lecturer to make them interesting and the student learns less during the hour than he would were he to open the lecturer's pet text-book and read for the same length of time. Only in exceptional circumstances is the systematic lecture a source of information that will stand the receptive student in good stead in medical practice later on. The chief object of the systematic lecture appears to be to prepare students for examinations. In our opinion they absorb more time than is justified by the result on the mind of the listener.

It is obvious that in a well-established medical school individual teaching can only be given to students in their practical work in the laboratory, in the ward, in the special departments and in the *post mortem* room. Class teaching, however, can be arranged in such a manner that the teacher is aware of the receptiveness of the individual student and the more intelligent students can be given more advanced work, while the average men and women work through the standard schedule. Admitting that individual tuition can only enter to a limited extent into the medical student's life, it becomes the duty of those responsible for the organization of the medical courses to minimize as much as possible the disadvantages of mass teaching. The systematic lecture, especially as it is given to-day, has all the defects of mass teaching. No allowance can be made for the variations in the rate at which the students can assimilate and retain the information given. The systematic lecture either feeds the minds of the smarter students at too slow a rate in order that the less brilliant may acquire sufficient knowledge to enable them to pass the examination, or fails to fulfil its functions as far as the average student is concerned, because the pace is set to suit the quickest minds. Not a minute of the medical course should be used merely for the purpose of enabling a student to pass an examination. The examinations are tests of knowledge, nothing more. If the student has acquired sufficient information and skill to render him a safe person to bear the responsibility of treating people during illness, he should be given permission to practice as a medical practitioner. The examination should be used for the purpose of ascertaining whether the student possesses this minimum amount of knowledge. The systematic lecture should therefore be condemned or its applica-

tion restricted. Everything that is taught by means of these lectures, can be taught more effectively and more rapidly by practical instruction, by demonstration and by clinical lecture. In the rearrangement of the medical curriculum, we hope to see the systematic lecture either abolished altogether, or limited to a few special purposes to which it can be adapted, provided that the lecturer possesses unusual skill in teaching. Its removal from the time table would result in a gain in time and opportunity for the student.

PNEUMOCOCCAL LIPO-VACCINES.

The immunizing power of pneumococci of fixed types has been closely studied, both in South Africa and in America, for a considerable time. Prior to the differentiation of the types, disappointing results were obtained and grave doubts were entertained by many investigators as to whether the injection of dead pneumococci led to any appreciable increase of resistance to pneumonia. The work of Lister in South Africa and later of American bacteriologists definitely established the fact that it was possible to induce a relatively high degree of immunity to a given type, provided that the doses were large. In the United States the pneumonia problem became a very real one when the Army was mobilized. Some prophylactic results were achieved by hygienic measures which were introduced largely through the foresight of Victor Vaughan. An investigation was undertaken at Camp Upton to ascertain the protecting value of pneumococcal vaccines of types I., II. and III. In all, 12,519 men were vaccinated, while approximately 20,000 men served as controls. The vaccine was given in doses of each type of pneumococci of from 6,000 to 9,000 millions, and each man received three or four doses. The results were favourable. There were, however, certain disadvantages associated with the vaccination. In the first place, the men had to be inoculated against the enterica group of infections and vaccinated against variola. In the next place, the vaccination against pneumonia frequently led to disturbing infiltrations. The tax thus put on both the medical officers and men was considerable. The publication by Whitmore in 1918 of a report on the use of vegetable oils for the purpose of suspending the bacteria appeared to offer an opportunity to remove one of the objections. At first olive oil was employed, but later cotton seed oil containing 2% of lanolin was substituted on account of its blandness and general suitability. Vaccines prepared in this medium were found to be as efficacious as ordinary vaccine, although it was soon discovered that the reactions were delayed. It was found that when these lipo-vaccines were used, the doses could be increased with impunity. In September, 1918, Major Russell L. Cecil and Captain Henry F. Vaughan were commissioned to proceed to Camp Wheeler, in Georgia, and there to test the efficacy of type lipo-vaccines among a large body of men.¹ This camp was chosen

because the incidence of pneumonia was higher than elsewhere. During the course of their investigations 16,875 men were in this camp. Of these, 13,594 were white men and 3,281 were negroes. There were 6,175 recruits of less than one month's standing and 10,700 "seasoned" men. The dose employed was 10,000 millions of each of the fixed types (I., II., III.). The number of men vaccinated was 13,460, while 3,415 refused. The reactions were mild and in no instance was a severe infiltration noted. Among the 13,594 vaccinated men 363 subsequently developed pneumonia, while of the 3,415 unvaccinated men, 327 developed pneumonia. Among the former, 32 of the infections were due to types I., II. or III., while of the latter 42 were infections with these organisms. It has been shown that the immune bodies do not appear until the eighth day after vaccination. Only eight of the 32 infections among the vaccinated developed later than the eighth day. The authors also call attention to the fact that in these eight cases the pneumonia was secondary to influenza. The incidence-rate per 1,000 men demonstrates that the infection among the unvaccinated was twice as high as among the vaccinated. An anomalous finding is met with in the tables. Among the vaccinated there were 298 pneumonic infections due to the unfixed type IV., while among the unvaccinated there were as many as 256. Why vaccination with the three fixed types should produce so marked a reduction in the incidence of type IV. pneumonia is not explained. The death-rate among the vaccinated was slightly lower than among the unvaccinated. The difference was well marked in the primary cases of pneumonia. These results are fully analysed by the authors. They admit that at first sight their figures are not as encouraging as they had hoped. On the other hand, they consider that they are justified in claiming satisfactory results in regard to the primary infections with types I., II. and III. and in making allowance for the obscuring influence of the influenza epidemic. It would seem that a pneumococcus lipo-vaccine must contain these types or at least the types present in infections in the locality in which it is applied. At present we are entirely ignorant as to the types of pneumococci infecting persons in the Commonwealth. Another point that is brought out by these investigations is that very large doses are needed to produce even a relatively good immunological response.

Members who are interested in the Royal Naval Services will regret to learn of the retirement of Surgeon Vice-Admiral Sir William Henry Norman, K.C.B., from the position of Director-General of the Medical Department of the Royal Navy. Sir William Norman has held this position for two years, during which time he has succeeded in enhancing the value of the medical service and in rendering it more attractive to graduates. His grandfather, three of his brothers and two of his sons have served in the Navy. He is succeeded by Surgeon-Captain Sir Robert Hill, K.C.M.G., C.B., who served as Principal Medical Officer of the Grand Fleet during the war.

Professor Grafton Elliot Smith, F.R.S., who has held the chair of anatomy in the University of Manchester for several years, has been appointed Professor of Anatomy at the University of London.

¹ *Journal of Experimental Medicine*, Vol. XXIX., No. 5, May 1, 1919.

Abstracts from Current Medical Literature.

THERAPEUTICS.

(36) Effects of Mustard Gas.

V. Lynch, H. W. Smith and E. K. Marshall, jun., have made a study of the action of dichlorethyl sulphide, commonly known as mustard gas (*Journ. Pharm. and Exper. Therapeutics*, December, 1918). They have tried to obtain proof of the absorption of the vapour through the lungs and the skin. With this object they have investigated the systemic action of mustard gas, apart from its local action on the respiratory tract, the eyes and the skin. They bring forward finally an hypothesis to account for the effects of the gas upon the tissues. Dichlorethyl sulphide is an oily, colourless liquid boiling at 217° C. It is slightly soluble in water. It has a characteristic odour suggestive of mustard or garlic. When an animal is exposed to the vapour of mustard gas it shows local symptoms on the eyes, skin and respiratory tract. These consist of conjunctivitis and superficial necrosis of the cornea; hyperæmia, œdema and necrosis of the skin and congestion and necrosis of the trachea and bronchi. In addition, there are systemic effects, such as salivation, vomiting and diarrhœa, tonic and clonic convulsions, slow and irregular beat of the heart. A dose of five milligrams per kilo proves fatal to dogs on intravenous injection. Similar symptoms appear after the inhalation of the vapour. The urine contains dihydroxyethyl sulphide after inhalation of the dichlorethyl sulphide. The hydroxy-derivative is not very toxic and does not account for the symptoms. Since mustard gas undergoes very rapid hydrolysis in aqueous solution, so that aqueous solutions lose their toxicity in a few minutes, it is evident that the toxic systemic symptoms which develop after some hours, must be due to some derivative formed in the body. The hypothesis is put forward that poisoning is due to the intracellular liberation of hydrochloric acid. Some interesting experiments on fish have been carried out which afford evidence compatible with this hypothesis. The authors compare their observations with those of Graham explaining the œdema, fatty infiltration, multiple hæmorrhages and necrosis in the liver after delayed poisoning by chloroform and alkyl halides. They consider that they have demonstrated that the effects of intracellular liberation of hydrochloric acid at a rapid rate as in the hydrolysis of dichlorethyl sulphide differ essentially from those seen in delayed chloroform poisoning.

(37) The Absorption of Dichlor-Ethyl Sulphide.

H. W. Smith, G. H. A. Clowes and E. K. Marshall have continued their studies on the pharmacological action of mustard gas or dichlor-ethyl sulphide and report on the mechanism of

its absorption by the skin (*Journ. Pharm. and Exper. Therapeutics*, April, 1919). They showed in a previous study (see *The Medical Journal of Australia*, June 14, 1919, p. 492) that the gas hydrolyzed readily, yielding hydrochloric acid, to which the irritant action is attributed and dihydroxy-ethyl sulphide which is an almost inert substance. They have conducted a series of experiments which show that the gas is not passed immediately through the skin, but is held by the superficial layers for a time. After a given exposure to the gas or to a solution in oil or other solvent, a relatively large proportion can be removed by soaking or rubbing with an organic solvent, such as kerosene. After 10 minutes' exposure to a saturated solution, mustard gas can be removed by kerosene applied for 20 minutes sufficiently to reduce the burning effect to a slight erythema. Similar and even more striking effects were seen when the gas was applied instead of the solution. It was found that the skin of some individuals was more resistant than was the skin of others. On the other hand, the more resistant skin, the larger was the amount of gas held in the superficial layers. The authors explain the observed phenomena as indicating an adsorption of the gas by some element on or immediately adjacent to the skin surface. A portion of the mustard gas passes rapidly through the superficial layer to a point where it cannot be subsequently removed, but the greater part remains for a considerable time in the surface. They found that the amount that passed spontaneously into the atmosphere from this situation exceeded the amount that passed into the inner strata of the skin. They were able to produce burns in a second individual from the skin of a person treated by gas or gas solution. The loss to the atmosphere at first is rapid and is still demonstrable after 45 minutes. The time of exposure necessary to produce a burning reaction bears a definite relation to the concentration of the gas. It varies in different individuals. They have formed the opinion that the variations in sensitivity of different skins is due primarily to differences in saturation adsorptive capacity. On the other hand, it appears that there is little variation in different individuals in regard to the concentration of absorbed gas necessary to induce changes in the protoplasm of the cells.

(38) The Effect of Moderate Exercise on Blood Pressure.

G. Smythe (*Practitioner*, April, 1919) has studied the systolic and diastolic blood pressure, the pulse pressure and the pulse-rate in healthy soldiers before and after Swedish exercises and records his opinion that these exercises when properly adjusted so that a moderate degree of exercise is given to every muscle and organ of the body, are highly beneficial. He disapproves of that form of physical culture which leads to the exaggerated development of muscles, to the detriment of the rest

of the body. He has found a considerable variation in the normal systolic blood pressure readings of young men between the ages of 18 and 39 years. The average worked out at 125 mm. Hg. The highest pressure was 152 mm. and the lowest 105 mm. On the other hand, the highest diastolic pressure was 80 mm. and the lowest 78 mm. The pulse pressure during rest was found to average 39 mm. The subjects were placed in a chair and the records made. They then underwent 50 minutes' exercise and the observations were made about ten minutes after the termination. The systolic blood pressure was unaltered in 3% of the men; it was raised by 5 mm. in 25%; while in 72% it was lowered up to 28 mm. The average lowering was 9 mm. In 57% of the men the diastolic pressure was raised. The average rise was 6 mm. The diastolic pressure was lowered by an average of 8 mm. in 41%. The pulse pressure showed an average lowering of 10 mm. in 66% and a rise of 6 mm. in 30%. He holds that moderate exercise leads to an increase of blood pressure at first by an increased ventricular contraction. After a time the peripheral vessels dilate and the blood pressure falls. This has a beneficial effect by increasing the skin circulation and promoting the sweat gland activity, without placing any extra work on the heart muscle.

(39) The Treatment of Influenza.

G. Lyon, writing in the *Med. Press* (January 15, 1919), gives some French views on the treatment of influenza. He prefaces his remarks by stating that he recognizes three forms of influenza: (i.) the constitutional form, with fever, pains in the muscles and prostration; (ii.) the thoracic form, with pulmonary congestion, œdema or bronchopneumonia; and (iii.) the gastro-intestinal form. In the treatment of the most common form (the first), he points out that no specific method has yet been discovered. The treatment must, therefore, be symptomatic. Antipyretics are largely used, such as antipyrine, phenacetin and aspirin; but they have the drawback that, while they reduce the fever, they cause profuse sweating. He recommends small doses, to avoid a depressant effect. The simultaneous exhibition of quinine salts, for choice the hydro-bromate is also useful. In addition he uses caffeine in doses of 0.05 grm. and sulphate of strychnine in doses of 0.001 grm., twice or three times a day. When there is evidence of supra-renal deficiency, manifested by pallor, a thready pulse, liability to fainting and *tâche cérébrale*, he finds that strychnine is of small value. Adrenalin may be given in doses of five drops (0.3 mils) every hour until 2.4 mils have been given. He considers that aconite is of service as a remedy for the paroxysmal cough and for the retro-sternal oppression of which patients complain. To reduce high temperatures he uses cold packs and gives hot drinks, and certain infusions. Alcohol is held in high esteem, but he does not give it to nervous subjects or to women. He avoids laxatives

and secures an evacuation of the bowels by saline enemata. For threatening heart failure he cups and gives digitalin or camphor. Venesection or dry cupping is of value in acute pulmonary oedema with cyanosis.

UROLOGY.

(40) Surgical Treatment of Gonorrhoeal Epididymitis.

A. B. James holds that the path of infection in gonorrhoeal epididymitis is more commonly the lymphatic than the urethra, ejaculatory ducts, vesicles and vas (*Journ. Amer. Med. Assoc.*, May 24, 1919). When the infection passes on to the epididymis, the organ becomes enlarged, tense and painful and on section is found to be congested. The tubules are filled with fluid at an early stage. The process goes on to pus formation in many instances. Hydrocele is frequently present, owing to inflammation of the *tunica vaginalis*. At times the *tunica* contains sero-purulent or purulent fluid. As the process heals, scar tissue forms with resultant sterility. He considers that the operation of epididymotomy is therefore justified. He has performed it in 115 cases with encouraging results. The operation is performed by making an incision in the scrotum large enough to deliver the testis. In a few cases when adhesions are dense or when other reasons exist which render the delivery of the testis inadvisable, the steps can be carried out through the scrotal opening. The *tunica vaginalis* is then punctured to evacuate any fluid that may be present. After the epididymis has been carefully palpated to ascertain the situation of the greatest induration, the *tunica vaginalis* is incised with great care in the long axis of the organ. The *tunica albuginea* is divided in the same careful manner and freed in all directions from the epididymis for a considerable distance. Visible veins should be avoided. A blunt probe is then inserted into the epididymis in several places and, if necessary, any collections of pus opened with the point of a knife. Drainage is carried out by means of a plain fenestrated rubber tube leading from the epididymis to the outer surface. The drainage is kept up for two days in the majority of cases; at times the tube is not removed for three days. The patients are kept in bed for four or five days. Pain disappears early. He records that in a series of cases treated by operation side by side with a similar series treated in other ways, the pain desisted within 24 hours on the average after operation and in from 3 to 6 days without. Resolution took place in 30 days after operation and in 40 days without. It was complete in 40% and nearly complete in a further 58% after operation, while in the comparative series it was complete in 8% and nearly complete in 60%. Recurrences did not occur after operation. He is inclined to believe that the interference with sterility is less likely when operation is resorted to. This point can only be determined by ob-

servation on bilateral cases. He therefore claims that operation in the early stages before there is marked hydrocele, is the proper method of treating epididymitis.

(41) Enuresis in Adults.

F. Hernaman-Johnson (*Practitioner*, May, 1919) when drawing up a list of conditions that were amenable to treatment by electrical means in the Electro-Therapeutic Department of the Cambridge Hospital at Aldershot, included enuresis. He had had experience of success in the treatment of nocturnal incontinence in children who had suffered from poliomyelitis and also in those with idiopathic enuresis. In his experience when other methods failed or appeared to be unjustifiable, electrical treatment succeeded. He was surprised to find that a large number of soldier patients, usually youths of from 18 to 22 years, presented themselves at the department for treatment. These young men were suffering from enuresis that had persisted from childhood. The nocturnal incontinence rendered them so objectionable to their comrades in camp that it was found to be necessary to discharge them from the Army unless the condition could be cured. He applied rhythmically interrupted sinusoidal or faradic currents through the region of the bladder for 15 minutes daily. To his disappointment, cure was effected in only 25% of these men. Psycho-therapeutic means were employed, but this benefited only about 10%. He then combined with the sinusoidal currents a high frequency condenser electrode applied to the prostate through the rectum. The frequency of cure increased to 60%. On his return to civil practice he saw a large number of enuresis cases in adults of both sexes. The treatment referred to has yielded equally good results in civil life, but it is often necessary to deal with an existing menorrhagia either first or simultaneously. He claims that in youths, the sexual functions which are usually dormant in males suffering from enuresis, become active as the nocturnal incontinence disappears. He is unable to supply a satisfactory rationale for the treatment. He suggests that electricity may exercise a stimulating action on the latent sexual organs, awakening them into activity. The incontinence in these circumstances may be regarded as a vicarious sexual act.

(42) Incompetency of the Uretero-Vesical Valves.

In 1908 Hagner published the details of a case of incompetency of the uretero-vesical valves not the result of intra-vesical pressure. A few further cases have been reported since that time. T. N. Hepburn adds another case to the small list (*Surg., Gynec. and Obstet.*, March, 1919). He claims that his case confirms Hagner's theory of inflammatory infiltration as a cause of the incompetency. The patient was a woman, aged 21, who had had a difficult labour 18 months before and had suffered from dysuria and incontinence

since. She had been confined to her bed for the greater part of 12 months. There was no fever and her general condition was good. The bladder was so small that it was almost impossible to obtain a view through the cystoscope. The wall was covered with a thick, whitish membrane which, on peeling, left a raw, bleeding surface. The diagnosis of interstitial cystitis was made and the condition was treated by injections of an emulsion of the Bulgarian bacillus described by Caulk. This treatment had the effect of enabling the cystoscopic examination to be carried out with ease. It was then found that the bladder could be dilated to hold 75 c.cm. of fluid and that the right ureteral opening measured 6 mm. in diameter. Cloudy urine exuded from this ureter. The left ureter had an opening of 5 mm. in diameter and the urine withdrawn from it was also cloudy with pus. The phenol-sulphone-phthalein test demonstrated an equal function of each kidney, the dye appearing in four minutes and reaching 7% in 15 minutes. There was distinct bladder leakage around the catheters. A skiagram taken after the introduction of a 15% thorium solution into the bladder revealed a small bladder with thorium fluid filling the ureters and the apparently normal renal pelvis. A continuation of the treatment led to a marked diminution of the regurgitation. The author assumes that the incompetency resulted from inflammatory changes ascending from the bladder along the ureters. He emphasizes an important point, namely, that even after prolonged incompetency, the uretero-vesical valves may regain their normal function.

(43) Recurrent Renal Crises.

George H. Whiteside refers to a condition which he has met with in sailors who have been on board second or third class cruisers in the North Atlantic in very heavy weather (*Journ. Amer. Med. Assoc.*, February 15, 1919). The very rough weather and extreme cold rendered it impossible for hot meals to be served and the diet was consequently of a quality that would convey a maximum of nourishment with a minimum of effort. The natural desire to drink water fell in abeyance; sleep was much interfered with; personal hygiene was out of the question for days at a time and even attention to regular movements of the bowels or normal frequency of urination was often neglected. The patients complained of pain recurring in crises and simulating renal colic. A physical examination failed to demonstrate any organic change, although the injection of 5 to 6 c.cm. of thorium solution into the renal pelvis gave rise to an attack of pain. The urine was scanty and of high specific gravity, but contained neither pus nor blood. The author arrived at the conclusion that the symptom was produced by decreased renal function extending over a considerable period of time. Recovery followed rest in bed, a light diet, increased ingestion of liquids, diuresis and mild daily purgation.

Medical Societies.

MELBOURNE HOSPITAL CLINICAL SOCIETY.

A meeting of the Melbourne Hospital Clinical Society was held at the Melbourne Hospital on June 27, 1919. Dr. J. Gordon presided.

The meeting opened in the Ophthalmological Department, with a demonstration by Sir James Barrett and Mr. Leonard Mitchell. They exhibited the following patients:—

(1) Case of retinal detachment following an acetylene gas explosion. In the left eye there was no perception of light and large areas of retinal detachment, with choroidal rupture, were evident on ophthalmoscopic examination.

(2) Rubber worker. Right vision was $\frac{5}{20}$, and left vision was $\frac{5}{20}$; the vision was not improved with glasses beyond $\frac{5}{20}$ on the right and $\frac{5}{20}$ on the left side. There was a relative colour scotoma for red and blue. The blood pressure was 220 mm. Hg.. The Wassermann test yielded a negative result.

Retinal hæmorrhages and arterio-sclerotic vessels were demonstrated in the left fundus.

(3) Subsiding optic neuritis following fracture of the base of the skull. The Wassermann reaction was positive.

(4) Male, æt. 43. The vision was $\frac{5}{20}$ on the right side and $\frac{5}{20}$ on the left side. The right fundus showed disseminated, chorioiditis. The Wassermann test yielded a negative response.

(5) Case of retinitis pigmentosa.

(6) Female, æt. 47. The patient had never complained of her eyes, but was sent for ophthalmoscopic examination as part of the investigation of her nervous system.

Sir James Barrett demonstrated a condition of acute glaucoma in the right eye.

Mr. Athol Tymms demonstrated the following cases:—

(1) Male patient, with a swelling in the left buttock of three months' duration, gradually increasing in size. The man stated that a small lump had appeared in the left groin six months prior to his attendance at the hospital. There was now no trace of it on admission. He complained of pain on movement of the limb and occasional pain down the leg. He had been operated upon four years previously for "vesical calculus," but apparently nothing of that nature was found. The patient admitted having contracted a chancre 24 years before, although there were no existing signs of syphilis. The result of the Wassermann test was not then available.

Examination revealed an ill-defined non-fluctuant, firm swelling in the lateral aspect of the left buttock. It appeared to be slightly painful on pressure and there was considerable limitation of movement in the left hip joint.

Mr. Basil Kilvington remarked that a rectal examination would be of value, in that the origin of the condition might thereby be located in the pelvis. He further suggested that the swelling might have arisen in an affection of one of the bursæ in the neighbourhood.

(2) A specimen of epithelioma of the penis, the microscopic section of which was on view. The patient had been admitted to hospital with retention of urine; the bladder had been aspirated suprapubically, but had refilled by the following day. The occasion of the patient's admission to hospital was his first experience of retention. He gave a history of a lump in the *glans penis*, which had been present for 18 months and caused more or less constant difficulty in urination. Venereal disease was denied. On clinical examination the glans was found to be excessively hard, but there was no ulceration and no infiltration of the skin. Although phimosis was present, the foreskin was not fixed. No catheter could be introduced through the urethral orifice. The inguinal glands on both sides were small, but several were suspiciously indurated.

Mr. Tymms said that he had had experience of eight cases of epithelioma of the penis, all over six months' duration, and all ulcerating, with the exception of one, which in being non-ulcerative, resembled the case he had just presented. All were associated with enlarged and indurated inguinal glands. He had performed the radical operation in every instance except one. Three of the patients had since died. Mr. Tymms demonstrated the after result of the Thiersch-Gould operation to which he had subjected the patient.

(3) Female, æt. 22, with gangrene of the left leg following influenza. On the first day spent out of bed the patient collapsed and it was noted that she was affected with a right complete hemiplegia and commencing dry gangrene of the left great toe. The gangrene had since spread to embrace the lower half of the leg and was well demarcated. The hemiplegia had almost disappeared.

Mr. Tymms reminded the meeting that a month earlier he had shown a case of gangrene of the right lower limb, extending to the thigh, for which amputation had been performed. That case constituted another instance of gangrene following influenza. In the case exhibited that evening, the Wassermann reaction had been at first "slow negative" and later "negative"; in the previous case a "good partial" reaction had been obtained. In his wards there were three other patients with gangrene of the toes and foot; in all these cases the gangrene had occurred in the early stage of convalescence from influenza. The Wassermann test in the three cases yielded a negative response. Four out of the five patients he had spoken of were females.

Dr. R. R. Stawell remarked that while any infective condition might give rise to endarteritis, his experience of this condition in children, adolescents and young adults led him to believe that in the vast majority of cases there was a syphilitic basis. He would send the blood for the Wassermann test repeatedly and would not accept a negative result without careful enquiry as to previous treatment. He would not ignore a "slow negative," in fact he would rather expect this type of reaction in a well nourished, congenital syphilitic after adolescence. Dr. Stawell asked those present to express their opinion as to the value of a provocative Wassermann test following the administration of salvarsan. Personally, he had never succeeded in inducing a positive reaction in this manner in cases where the Wassermann was negative prior to the injection.

Dr. Frank Andrew spoke regarding provocative doses of salvarsan and cited a case of labyrinthine destruction, with extreme vertigo, staggering, vomiting, etc.. The Wassermann test was negative. Novarseno-billon, 0.6 grm., was given intravenously and the blood sent for examination 24 hours afterwards. The result was again negative. Five days later, however, another specimen yielded a "good partial" reaction. The patient improved rapidly under anti-syphilitic treatment and it appeared that the blood could be taken too early to obtain a response to a provocative injection of "606."

Dr. Konrad Hiller said that in his opinion a positive Wassermann reaction was conclusive and admitted of no argument. He thought that graded results were of value, if taken in conjunction with clinical signs. He had never seen a provocative reaction after salvarsan in cases in which the blood was negative prior to the injection, and the re-examination had been made 24 to 48 hours after the injection of the salvarsan. He reminded the members that in a biological test of the nature of fixation of complement, absolute accuracy was extremely difficult to attain. The guinea-pig's serum was not constant, nor was the patient's; in fact, the amboceptor was the only constant factor. Hence slight variations, such as that represented by a change from "feeble partial" to "slow negative" or "negative," were bound to occur.

Dr. Frank Andrew presented a young woman who, seven days previously, had complained of severe left earache, which was found to be associated with a left facial paralysis. At the time of the first examination, there was tenderness of the pinna and left cheek and relative anaesthesia of the anterior third of the tongue, the left cheek and of the conjunctiva on the left side. It was seen that there was a gross corneal ulcer of the left eye. He had seen many cases of facial paralysis, but could not recollect an instance of associated corneal ulceration. He regarded the lesion as an herpetic affection of the geniculate ganglion. The question was raised whether a similar process had involved the Gasserian ganglion, or was the condition to be interpreted as indicating that the seventh nerve supplied sensory fibres to the conjunctiva.

Sir James Barrett remarked that, although it was very unusual for facial paralysis to be followed by corneal ulceration, yet he had seen the sequence. He had found true anaesthesia of the conjunctiva very difficult to determine; it

was a condition that might be suggested, simulated or hysterical. In the particular case under discussion, he was disposed to think that there was an affection of the Gasserian ganglion as suggested by Dr. Andrew.

Dr. W. Kent Hughes thought that it was not necessary to implicate the Gasserian ganglion in the lesion; the existence of facial paralysis was occasionally sufficient to determine ulceration of the cornea.

Mr. B. G. Zwar demonstrated two patients.

The first, a female, *æt.* 29, had been shown at the last meeting. Exophthalmos and tachycardia—pulse at rest 116-124—had been present for twelve months, with no amelioration under medical treatment. He had operated under rectal anesthesia and found the left lobe of the thyroid, which was much the larger, very difficult to enucleate; in fact, dissection was necessary for its removal. The hæmorrhage was very free. The specimen was reported as an endothelioma and the microscopic preparation was on view. Two months later, March, 1919, there was no conspicuous improvement in her general condition, although breathing was not embarrassed and swallowing was unimpaired. When seen again in May, the patient was under considerable disability as regards both swallowing and breathing. X-ray treatment was then instituted and at the end of four weeks the symptoms remained unaltered. He could not say there had been any real improvement in the thyrotoxic symptoms.

Dr. S. Pern recollected several cases of malignant disease of the thyroid with thyrotoxic symptoms. The speaker further stated that it was within his experience that localized adenomata were occasionally accompanied by thyrotoxic manifestations. He thought that their presence led to a certain irritation of the gland much after the manner of a foreign body.

Dr. W. Kent Hughes suggested that a bronchoscopic examination of Mr. Zwar's patient would probably be very interesting. He had never associated malignant disease of the thyroid with hyper-thyroidism.

Mr. Zwar's second patient was a man with an epithelioma of the dorsum of the hand, accompanied by very pronounced lymphangitis and a chain of enlarged glands on the medial aspect of the forearm and arm. The diagnosis lay between a continuous malignant permeation of the lymphatic vessels and a purely inflammatory affection, sequent on the infected condition of the primary ulcer.

Opinion favoured the latter view. A microscopical section of the primary lesion was shown.

Encephalitis Lethargica.

Dr. R. R. Stawell presented two patients suffering from the condition known as *encephalitis lethargica*.

(1) The first patient was a young woman who, fourteen days previously, had been seized with an illness, the onset of which in many respects resembled that of influenza. In that headache, fever and myalgia were prominent features. Later, extreme drowsiness and lethargy supervened, with aggravation of the headache. The lethargy, though extreme, was characterized by a singular alertness in response to questions addressed to the patient. Fever, lassitude, headache and asthenia were the dominant features in this patient, and no cranial nerve affection had been noted at any time.

(2) The second patient was a labourer, who had been ill for one month. The onset was very similar to that of the illness in the first patient. The patient was considered to have contracted the prevailing influenza. He returned to work after the lapse of one week, but, on the first day of resumption of work, broke down and then, for the first time, complained of "seeing double." At the end of two weeks the temperature remained at 38.3° C.; headache was severe and accompanied by distressing buzzing in the ears.

The lassitude and lethargy were pronounced by day, but, nevertheless, the patient was subject to periods of restlessness and lack of sleep at night. He had been singularly free from any catarrhal signs in the lungs. The diplopia had disappeared after a week, but the headache persisted with great severity. Some difficulty of speech and mastication became evident, and weakness of the left facial muscles was noted. At times there appeared what might be described as exacerbations of asthenia, during which the prostration was extreme; the patient felt that he could not move and believed himself to be dying.

In addition to the left facial paresis, weakness of the right facial muscles supervened, accompanied by some difficulty in micturition.

This patient had been sent to hospital with a provisional diagnosis of cerebral tumour, which in Dr. Stawell's opinion was an eminently reasonable view. In this instance there had been no optic neuritis. Dr. Andrew had suggested that the deafness was due to a paralysis of the stapedius muscle. The cerebro-spinal fluid exhibited no abnormal cytology and a faint increase only in the globulin content. The Wassermann test applied to both the blood serum and the cerebro-spinal fluid yielded a negative response.

Dr. Konrad Hiller quoted several examples of *encephalitis lethargica* which had come within his experience. The first instance was in a clerk, who first noticed inability to keep awake. The drowsiness overcame him while at his work and next day was intolerable. On that evening, *i.e.*, the second day, he saw double. He was improving after four weeks.

His second experience was that of a patient with severe headache, whose blood pressure of 210 mm. led him to suspect uræmia. Suspicion of encephalitis was awakened by the presence of diplopia. A few days later this patient was stuporose and salivating profusely (bulbar paralysis); double ptosis was present, food collected in the cheek on attempted mastication and articulation was difficult. In this instance also a steady improvement was being maintained.

In a third case in which the characteristic features of drowsiness, headache and diplopia were present, the illness terminated fatally. It was interesting to note that at the autopsy double pneumonia of the influenzal type was found.

Dr. Hiller cited a fourth instance, in which the patient had been the last of a family to contract influenza. Extreme drowsiness and complete facial paralysis were accompanied by a temperature of 40° C. In conclusion Dr. Hiller remarked that in all the foregoing cases there was definite fever. He thought the condition was intimately related to influenza.

Dr. W. J. Denehy contributed some remarks relative to an instance of encephalitis that had arisen in his practice. He also had noted pyrexia, languor, diplopia, facial paralysis and severe headache. He commented on the absence of pulmonary or catarrhal signs in this instance.

Dr. R. R. Stawell, in reply, said that the patients he had shown were two of a series of ten that he had encountered within a period of six weeks. In the first case of the series he had made a tentative diagnosis of tuberculous meningitis, being led thereto by the presence of fever, headache, lethargy and diplopia. However, neck rigidity and photophobia were absent and the cerebro-spinal fluid furnished no confirmatory evidence of meningitis. He had also suspected uræmia in another instance of severe headache with supervention of coma, the suggestion of uræmia arising from the fact that the blood pressure was over 200 mm. Here, again, a collateral line of investigation, *viz.*, the examination of the urine, rendered his first hypothesis extremely unlikely.

A peculiar feature he had observed in some of these cases of *encephalitis lethargica* was the sleepiness by day and extreme restlessness, occasionally approaching delirium, at night. He had met the condition so frequently during recent weeks, having seen it in eight different suburbs, that he deemed it important to bring it into prominence that evening.

Although the prognosis as regards life appeared to be good—he had seen no fatalities in 10 cases—they had to bear in mind the possibility of the disease acquiring enhanced virulence as it progressed. He thought that, on the whole, there was little danger of permanent paralysis, but this was not impossible where severe lesions existed.

Mr. Basil Kilvington showed an example of abdominal injury leading to rupture of the intestine. Recovery followed on simple drainage of the abdomen. He had found turbid fluid in the peritoneal cavity, but after thorough search did not succeed in locating the tear, an experience which, he thought, came sooner or later to most surgeons.

Mr. B. G. Zwar thought that the event in such cases was largely determined by the site of the perforation or rupture. The contents of the stomach, duodenum and upper part of the jejunum were sterile, and they were familiar with examples of perforated gastric ulcer in which recovery had

followed without surgical intervention. Cultures from the peritoneal exudate a few hours after the catastrophe had shown the fluid to be sterile in the type of case to which he was referring.

Dr. R. R. Stawell instanced the cases of soldiers on Gallipoli with bullet wounds in the upper regions of the abdomen, who in some instances declined operation. Many of them got well.

Dr. Clendinnen demonstrated (1) a radiogram of collargol injection of the ureter; (2) two cases of extensive rodent ulcer, which were being held in check by radium.

Naval and Military.

HONOURS.

The following announcements of awards made to members of the Australian Army Medical Corps appears in the *Commonwealth of Australia Gazette*, No. 91, of July 23, 1919. The notices are copied from the *London Gazette*.

Awarded the Military Cross.

Captain Harris Mendelsohn, 6th Field Ambulance, Army Medical Corps, attached 21st Battalion (see *The Medical Journal of Australia*, April 12, 1919, page 302).

Croix de Guerre.

Major John Vincent Hume Guest, 8th Field Ambulance, Army Medical Corps.

St. James's Palace,

15th April, 1919.

The King has been graciously pleased to command, on the recommendation of the Secretary of State for War, that the following appointments to, and promotions in, the Order of the British Empire, which were published in the *London Gazette* on the dates stated, shall be transferred to the Military Division of the Order, in terms of the notification published in the *London Gazette*, No. 31084, of 27th December, 1918:—

Commander.

Lieutenant-Colonel John Hubback Anderson, Australian Imperial Force. Dated 7th January, 1918.

Officers.

Lieutenant-Colonel John Kellerman Adey, Australian Imperial Force. Dated 7th June, 1918.

Major Lionel Oxborough Betts, Australian Imperial Force. Dated 7th January, 1918.

Lieutenant-Colonel William Ernest Grigor, Australian Imperial Force. Dated 7th June, 1918.

Major Walter Henry Tofft, Australian Imperial Force. Dated 7th January, 1918.

APPOINTMENTS.

The following appointments, etc., have been notified in the *Commonwealth of Australia Gazette*, No. 92, of July 24, 1919:

Australian Imperial Force.

Second Military District.

Major N. M. Gibson, Australian Army Medical Corps, to be temporary Lieutenant-Colonel whilst employed as Officer in Charge Treatment, 1st Australian Dermatological Hospital. Dated 13th March, 1919. (This cancels notification regarding this officer which appeared in Executive Minute, No. 454/19, promulgated in *Commonwealth of Australia Gazette*, No. 80/19.)

Fourth Military District.

Major C. L. Clarke, Australian Army Medical Corps, to command 5th Light Horse Field Ambulance, and to be temporary Lieutenant-Colonel whilst so employed. Dated 13th January, 1919. (This cancels notification regarding this officer which appeared in Executive Minute No. 454/19, promulgated in *Commonwealth of Australia Gazette*, No. 80/19.)

Fifth Military District.

Lieutenant-Colonel (temporary Colonel) R. S. McGregor,

D.S.O., Australian Army Medical Corps, relinquished the temporary rank of Colonel on ceasing to perform the duties of Assistant Director Medical Services, 4th Australian Division. Dated 7th April, 1919.

To be Captain—

Honorary Captain A. H. Thwaites, Australian Army Medical Corps Reserve. Dated 27th July, 1915.

APPOINTMENTS TERMINATED.

Third Military District.

Lieutenant-Colonel J. W. Springthorpe. Dated 17th March, 1919.

Lieutenant-Colonel C. E. Dennis. Dated 20th June, 1919.

Lieutenant-Colonel D. D. Cade, D.S.O.. Dated 11th May, 1919.

Major L. R. Cook. Dated 9th July, 1919.

Captain A. H. Thwaites. Dated 14th January, 1916.

Fourth Military District.

Major L. G. Tassie, D.S.O.. Dated 18th July, 1919.

Australian Military Forces.

First Military District.

Australian Army Medical Corps—

Major (Honorary Lieutenant-Colonel) R. Macdonald, V.D., to be transferred to the Australian Army Medical Corps Reserve. Dated 31st May, 1919.

Second Military District.

Australian Army Medical Corps—

To be Lieutenants-Colonel—

Major J. A. Dick. Dated 1st July, 1919.

Major (Brevet Lieutenant-Colonel) R. J. Millard, C.M.G.. Dated 1st July, 1919.

Major (Honorary Lieutenant-Colonel) W. C. Grey. Dated 1st July, 1919.

Major (Honorary Lieutenant-Colonel) E. S. Stokes. Dated 1st July, 1919.

To be Majors—

Captain (Honorary and temporary Lieutenant-Colonel) J. H. Phipps, D.S.O.. Dated 1st July, 1919.

Captain (Honorary Lieutenant-Colonel) A. H. Tebbutt, D.S.O.. Dated 1st July, 1919.

Captain (Honorary Lieutenant-Colonel) J. C. Storey. Dated 1st July, 1919.

Captain (Brevet Major) K. Smith, C.M.G.. Dated 1st July, 1919.

Captain (Honorary Major) A. J. Aspinall. Dated 1st July, 1919.

Captain (Honorary Major) J. J. Holywood. Dated 1st July, 1919.

Captain J. W. B. Bean. Dated 1st July, 1919.

Captain A. J. Mackenzie. Dated 1st July, 1919.

Captain P. Fiaschi. Dated 1st July, 1919.

Captain (Brevet Major) A. L. Dawson, D.S.O.. Dated 1st July, 1919.

Third Military District.

Australian Army Medical Corps—

To be Lieutenants-Colonel—

Major (Honorary Lieutenant-Colonel) C. C. MacKnight, V.D.. Dated 1st July, 1919.

Major W. B. Vance. Dated 1st July, 1919.

To be Majors—

Captain (Honorary Major) T. P. Dunhill. Dated 1st July, 1919.

Captain W. E. Summons. Dated 1st July, 1919.

Captain C. G. Shaw, D.S.O.. Dated 1st July, 1919.

Captain (Honorary Lieutenant-Colonel) J. A. H. Sherwin. Dated 1st July, 1919.

Captain J. J. McMahon. Dated 1st July, 1919.

Captain (temporary Major) W. H. Summons. Dated 1st July, 1919.

Captain (Honorary Major) J. A. O'Brien.

Australian Army Medical Corps Reserve—

Willberforce Stephen Newton to be Honorary Captain. Dated 1st July, 1919.

Fifth Military District.

Australian Army Medical Corps—

Major (Brevet Lieutenant-Colonel) G. W. Barber

C.M.G., D.S.O., to be Lieutenant-Colonel. Dated 1st July, 1919.

Australian Army Medical Corps Reserve—

Honorary Captain H. J. Gray to be granted the temporary rank and pay of Major whilst employed as Specialist at No. 8 Australian General Hospital. Dated 1st May, 1919.

Sixth Military District.

Australian Army Medical Corps—

Captain (Honorary Major) H. Z. Stephens to be Major. Dated 1st July, 1919.

The temporary rank of Major granted to Captains (Honorary Majors) G. Sprott and J. Sprent, M.C., and Captain C. N. Atkins is terminated. Dated 31st May, 1919.

Captain E. Brettingham-Moore to be granted the temporary rank and pay of Major from 5th June, 1919, to 12th June, 1919.

GRANT OF HONORARY RANK.

The undermentioned, who have served in the Australian Imperial Force as Commissioned Officers, having the rank held by them in the Australian Imperial Force confirmed as honorary rank in the Australian Military Forces, as follows:—

Officers who, on appointment for active service outside Australia, were serving and are now serving in the Australian Military Forces.

Second Military District.

To be Honorary Majors—

Captain E. A. Sanbrook, Australian Army Medical Corps. Dated 28th January, 1918.

Captain S. H. Weedon, Australian Army Medical Corps. Dated 28th January, 1918.

Honorary Captain I. Morgan, Australian Army Medical Corps Reserve. Dated 1st July, 1918.

Third Military District.

To be Honorary Lieutenant-Colonels—

Captain G. A. W. J. Knight, Australian Army Medical Corps. Dated 1st October, 1917.

Captain A. M. Wilson, Australian Army Medical Corps. Dated 2nd May, 1918.

To be Honorary Majors—

Captain C. G. G. Moodie, Australian Army Medical Corps. Dated 1st January, 1916.

Captain W. W. W. Chaplin, Australian Army Medical Corps. Dated 27th April, 1917.

Fourth Military District.

To be Honorary Colonels—

Lieutenant-Colonel M. H. Downey, D.S.O., Australian Army Medical Corps. Dated 26th April, 1918.

Major C. T. C. de Crespigny, D.S.O., Australian Army Medical Corps. Dated 25th June, 1918.

The undermentioned, who have served in the Australian Imperial Force, as Commissioned Officers, are appointed to the Reserve of Officers (temporarily), and are granted the honorary rank equivalent to that held by them in the Australian Imperial Force:—

Officers who, on appointment for active service outside Australia, were not serving in the Australian Military Forces.

First Military District.

To be Honorary Captain—

A. J. Reye. Dated 18th July, 1916.

Second Military District.

To be Honorary Captains—

J. C. Booth. Dated 20th April, 1916.

W. S. Hawthorne. Dated 1st October, 1916.

A. P. Murphy. Dated 1st March, 1917.

Third Military District.

To be Honorary Major—

V. F. Crowe. Dated 28th January, 1918.

To be Honorary Captains—

V. Macdonald. Dated 18th August, 1917.

P. Shaw. Dated 1st March, 1916.

Fifth Military District.

To be Honorary Majors—

A. Goldstein. Dated 27th April, 1917.

A. E. Cullen. Dated 28th January, 1918.

TERMINATION OF GRANT OF TEMPORARY HONORARY RANK.

Australian Army Medical Corps Reserve.

The temporary honorary rank of Major granted to F. de V. Lamb, C.B.E., is terminated. Dated 6th May, 1919.

The temporary honorary rank of Captain granted to W. H. Gors and J. L. Kiddle is terminated. Dated 30th September, 1918, and 4th July, 1919, respectively.

We learn that Dr. Keith Russell Moore, who holds a commission as honorary Captain in the Australian Army Medical Corps Reserve, has been appointed to take charge of the sanatorium for tuberculous soldiers at Macleod, Victoria. Dr. Moore graduated in the year 1915. He succeeds Dr. James Thomas Mitchell, who holds the commission of an honorary Major in the Australian Army Medical Corps Reserve. Dr. Mitchell will act as Senior Surgeon at the military hospital at Mont Park.

Special Correspondence.

(By Our Special Correspondent.)

LONDON LETTER.

Decrease of Drunkenness.

Figures relating to the sale of intoxicating liquor in England and Wales in 1916 show that the total of 84,191 convictions for drunkenness is the lowest recorded for nearly fifty years, and is 55% below that of 1913. This decrease has been continued and accentuated throughout 1915 and 1916. The convictions for the year 1916 were 38% below those of 1915, the decrease in the preceding year being 26%.

The figures for the last four years are as follow:—

	Males.	Females.
1913	153,112 ..	35,765
1914	146,517 ..	37,311
1915	102,600 ..	33,211
1916	62,946 ..	21,245

On January 1, 1916, there were 85,889 on licences and 22,977 off licences. The decrease in the first class was 737, as compared with an average decrease of 1,235 in the eleven years—1905-1915. It was estimated that there were about 85,271 on licences and 22,722 off licences at the beginning of this year. Clubs numbered 8,166—a diminution of 354. There were 2,421 convictions in 1916 for breaches of the Central Control regulations.

The University of London.

There has been again no Presentation Day this year (1918) at the University of London, and the report of the Vice-Chancellor has been circulated, like that of last year, as a printed document.

There is no new development of importance to call attention to. The University is being run on a war scale, with the students hard at work in one form or another helping to win the war. But the Vice-Chancellor takes the opportunity of bearing testimony to the readiness with which the several authorities have surrendered all land and buildings required for military purposes; to the development and co-operation between the various bodies and individuals, both academic and administrative, who share the immediate supervision of the teaching work; to the eager response given by the members of the staffs and students, both men and women, to appeals from Government departments and other public agencies for the conduct of special researches, or for skilled assistants in activities ancillary to the prosecution of the war; to the notable part that the London University has taken in common with her sister universities throughout the Kingdom, in providing special lectures and courses of study for the men and women serving in France, and for those engaged in munition centres in this country; to the arrangements that have been made for the holding of the

matriculation and certain external examinations at Ruhlben; to the facilities which it is hoped to be able to provide for soldier and sailor scholars from the dominions who are medically unfit for further service, but wish to enter the University; and to the schemes which have been approved for the special examination of students, both internal and external, who have been engaged in His Majesty's forces, or undertaken other approved services in connexion with national defence, or been interned as civilian prisoners of war. The total number of members and officials of the University whose death on active service has been reported since the outbreak of the war, is 1,474.

A letter awaits the Mr. Moffat who called in at the office of the *Journal* early in July.

Medical Appointments.

The Board of Public Health of Victoria has approved of the appointment of Dr. A. R. Thorne (B.M.A.) as Officer of Health for the Shire of Walpeup, Victoria.

The appointment of Dr. D. C. Pidgon (B.M.A.) as Public Vaccinator for the Metropolitan District, of Dr. D. D. Browne (B.M.A.) for the South-Western District and of Dr. E. F. Harbison as Acting Public Vaccinator for the North-Western District, Victoria, is announced in the *Victoria Gazette* of July 23, 1919.

Dr. Hugh Rayson (B.M.A.) has been appointed Government Medical Officer at Manila, New South Wales, Dr. C. A. F. Clark (B.M.A.) having resigned.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xix.

Commonwealth of Australia: Medical Officer, Postmaster-General's Department, Sydney.

Public Service Board, Sydney: Principal Medical Officer, Department of Public Instruction.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges, Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital.
TASMANIA. (Hon. Sec., Macquarie Street, Hobart.)	Medical Officers in all State-aided Hospitals in Tasmania.

Branch.	APPOINTMENTS.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmaln United Friendly Societies' Dispensary. Canterbury United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Friendly Society Lodges at Lithgow. Friendly Society Lodges at Parramatta, Auburn and Lidcombe. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seaham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phoenix Mutual Provident Society..
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

- Aug. 5.—Tas. Branch, B.M.A., Branch and Council.
 Aug. 6.—Vic. Branch, B.M.A..
 Aug. 8.—Q. Branch, B.M.A., Council.
 Aug. 8.—N.S.W. Branch, B.M.A., Clinical.
 Aug. 8.—S. Aust. Branch, B.M.A., Council.
 Aug. 12.—N.S.W. Branch, B.M.A., Ethics Committee.
 Aug. 13.—North-Eastern Med. Assoc. (N.S.W.).
 Aug. 14.—Vic. Branch, B.M.A., Council.
 Aug. 15.—Central Southern Med. Assoc. (N.S.W.).
 Aug. 19.—Tas. Branch, B.M.A., Branch and Council.
 Aug. 19.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
 Aug. 19.—Illawarra Suburbs Med. Assoc..
 Aug. 20.—W. Aust. Branch, B.M.A., Branch and Council.
 Aug. 21.—City Medical Assoc. (N.S.W.).
 Aug. 22.—Q. Branch, B.M.A., Council.
 Aug. 26.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
 Aug. 27.—Vic. Branch, B.M.A., Council.
 Aug. 28.—S. Aust. Branch, B.M.A..
 Aug. 29.—N.S.W. Branch, B.M.A..
 Sept. 2.—Tas. Branch, B.M.A., Branch and Council.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated. All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney.